

Year 7 Test paper – Mid year

mathsalpha.com

1. Work out without using the calculator.

a) 26.5×5.8

b) $18.55 \div 0.7$

2. Work out without using the calculator.

a) $12 - 5(9 \times 2 - 12 \div 4)$

b) $3^2 - 2^2(2^2 \times 3 - 3^2)$

3. Find HCF and LCM of 64 and 120.

4. Expand and simplify.

$$3(2x - 2) - (x + 3)$$

5. Simplify.

a) $2x^2 \times 3x^3$

b) $5ab^2 \times 4a^2b$

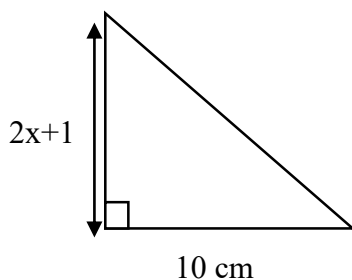
6. Find the value of $3^2 \times 3^{-1} \times 3^0$

7. Solve; $3 + 2(x - 1) = x + 12$

8. Find y , if $a = -3$ and $b = 4$; $y = 2a^2 - ab$

9. Solve the inequality; $5(x + 3) > 3x + 17$

10.

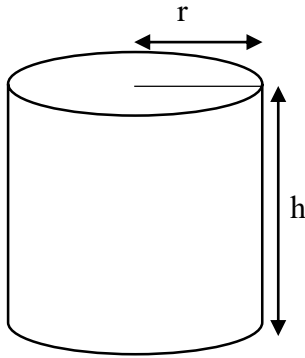


Find the height of the triangle if the area of the triangle is 65cm^2 .

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11. The volume of a cylinder is given by the formula, $v = \pi r^2 h$ ($\pi = \frac{22}{7}$)



The volume of the cylinder is 1232cm^3 . Find the height if radius of the cylinder is 7cm .

12. Factorize.

a) $5x^2 - 65x$

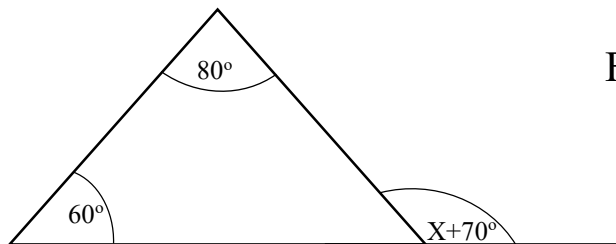
b) $3x^2y - 27xy^2$

13. Solve ; $\frac{3}{5}(x + 2) = x - 1$

14. Simplify; $3\frac{2}{5} - 1\frac{3}{4}$

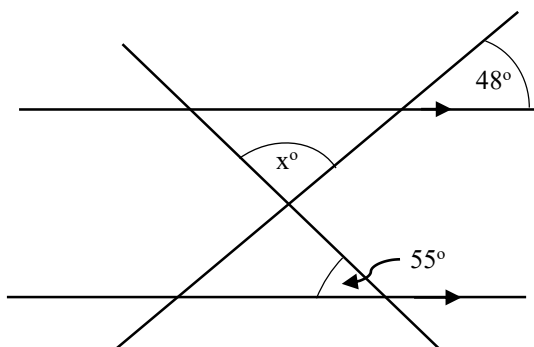
15. Simplify; $4\frac{1}{6} \times 7\frac{1}{5}$

- 16.



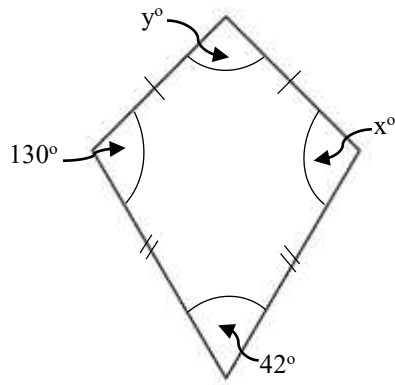
Find x° .

- 17.



Find x° .

18.

Find angles x° and y° .

19. Solve.

$$\frac{3(x + 4)}{4} = \frac{x - 12}{2}$$

20. Sarah spends $\frac{2}{3}$ of her monthly salary for rent and food. She spends $\frac{2}{5}$ of remaining salary for transport. After rent, food and transport cost, she save $\frac{1}{3}$ of the remaining money. She save £ 150 every month. Work Sarah's monthly salary.